

United States Environmental Protection Agency Office of Environmental Measurement & Evaluation 11 Technology Drive North Chelmsford, MA 01863-2431

Laboratory Results

October 11, 2017

Danielle Gaito - Mail Code OEP06-4 Evan Lewis - Mail Code OEP06-1 US EPA New England R1

Project No: 17090014

Project: Merrymeeting River - New Durham, NH

Analysis: Ammonia as N EPA Chemist: Bhavita Patel

Date Samples Received by the Laboratory: 09/12/2017

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-INGAMMOO.

This SOP is based on the Lachat method 10-107-06-1-X and EPA method 350.1 "Determination of Ammonia Nitrogen by Semi Automated Colorimetry, Rev 2.0, August 1993.

Samples were digested using Lachat micodistallation unit. Samples were analyzed on Lachat Automated Ion Analyzer.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at.

Sincerely,

Qualifiers: Page 2 of 6

- **RL** = Reporting limit
- **ND** = Not Detected above Reporting limit
- **NA** = Not Applicable due to high sample dilutions or sample interferences
- **NC** = Not calculated since analyte concentration is ND.
- J = Estimated value
- **J1** = Estimated value due to MS recovery outside acceptance criteria
- **J2** = Estimated value due to LFB result outside acceptance criteria
- **J3** = Estimated value due to RPD result outside acceptance criteria
- **J4** = Estimated value due to LCS result outside acceptance criteria
- \mathbf{E} = Estimated value exceeds the calibration range
- L = Estimated value is below the calibration range
- **B** = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
- \mathbf{R} = No recovery was calculated since the analyte concentration is greater than four times the spike level.
- ${f P}={f The}$ confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
- C =The identification has been confirmed by GC/MS.
- \mathbf{A} = Suspected Aldol condensation product.
- N =Tentatively identified compound.

US ENVIRONMENTAL PROTECTION AGENCY NEW ENGLAND LABORATORY

Merrymeeting River - New Durham, NH

Ammonia as N

Matrix: Water

Sample Number	Lab ID	Collected	Digested	Analysis	Concentration ug/L	RL ug/L	Qualifier
Blank Comments:			10/04/2017	10/04/2017	ND	66	
MM01 Comments:	AB70033	09/12/2017	10/04/2017	10/04/2017	ND	66	
PM01 Comments:	AB70034	09/12/2017	10/04/2017	10/04/2017	170	66	
PM02 Comments:	AB70035	09/12/2017	10/04/2017	10/04/2017	170	66	
MM02 Comments:	AB70036	09/12/2017	10/04/2017	10/04/2017	ND	66	
MM03 Comments:	AB70037	09/12/2017	10/04/2017	10/04/2017	ND	66	
DUP04 Comments:	AB70038	09/12/2017	10/04/2017	10/04/2017	ND	66	

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Merrymeeting River - New Durham, NH

MATRIX SPIKE (MS) Results

		SPIKE	SAMPLE	SAMPLE MS			
		ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS	
SAMPLE ID	PARAMETER	ug/L	ug/L	ug/L	REC	(% REC)	
AB70035	Ammonia as N	2000	165	2140	99	85 - 115	

Comments:

Laboratory Duplicate Results

		SAMPLE	SAMPLE DUP	PRECISION	QC
		RESULT	RESULT	RPD	LIMITS
SAMPLE ID	PARAMETER	ug/L	ug/L	%	(%RPD)
AB70035	Ammonia as N	165	165	0	20

US ENVIRONMENTAL PROTECTION AGENCY NEW ENGLAND LABORATORY

Merrymeeting River - New Durham, NH

Laboratory Fortified Blank (LFB) Results

DA DA METED	LFB AMOUNT SPIKED	LFB RESULT	LFB RECOVERY	QC LIMITS
PARAMETER	ug/L	ug/L	%	%
Ammonia as N	2000	1820	91	90 - 110

Samples in Batch: AB70033, AB70034, AB70035, AB70036, AB70037, AB70038

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